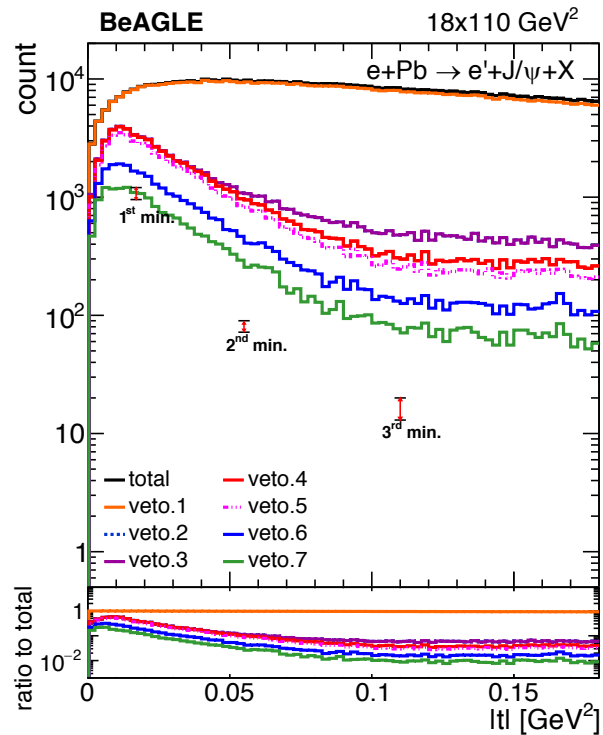


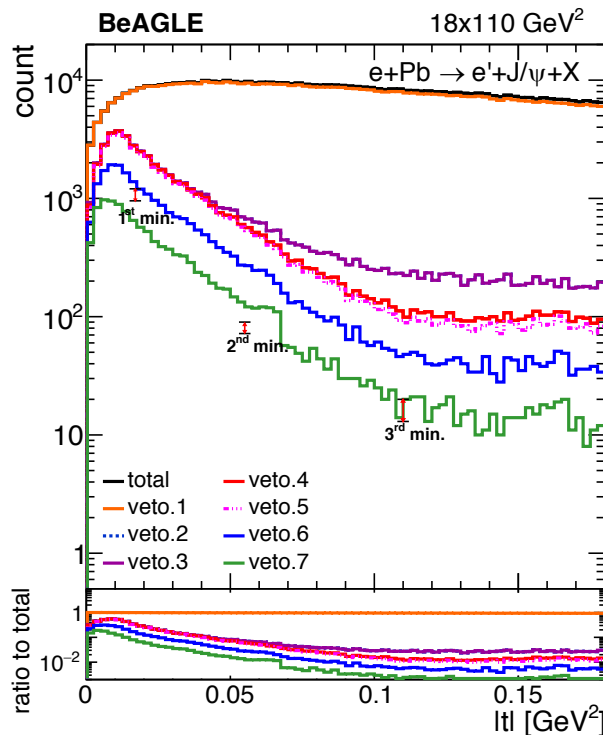
Beam pipe impact

With beam pipe



Survived event count		
Total events	1322778	100%
Veto.1	1149549	86.9%
Veto.2	128662	9.73%
Veto.3	128662	9.73%
Veto.4	115500	8.73%
Veto.5	81944	6.2%
Veto.6	43414	3.28%
Veto.7	26950	2.037%

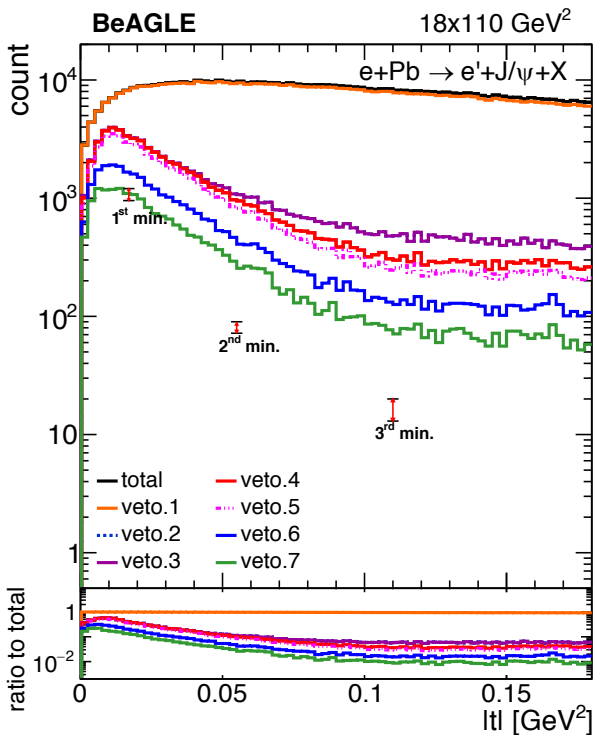
Without beam pipe



Survived event count		
Total events	1322778	100%
Veto.1	1149549	86.9%
Veto.2	76844	5.809%
Veto.3	76844	5.809%
Veto.4	66919	5.059%
Veto.5	57507	4.347%
Veto.6	29323	2.217%
Veto.7	13535	1.023%

- Veto.1:**
- no activities ($|\eta| < 4.0$ & $p_T > 100 \text{ MeV}/c$ & $E > 50 \text{ MeV}$) other than e^- and J/ψ in the main detector (generator level)
- Veto.2:**
- veto.1 and no neutron in ZDC;
- Veto.3:**
- veto.2 and no proton in RP;
- Veto.4:**
- veto.3 and no proton in OMD;
- Veto.5:**
- Veto.4 and no charge particles in B0
- Veto.6:**
- Veto.4 + no anything in preshower
- Veto.7:**
- Veto.5 + no photon $E > 50 \text{ MeV}$ in ZDC

Old files VS. new files



New

Veto.1:

- no activities ($|\eta| < 4.0$ & $p_T > 100 \text{ MeV/c}$ & $E > 50 \text{ MeV}$) other than e^- and J/ψ in the main detector (generator level)

Veto.2:

- veto.1 and no neutron in ZDC;

Veto.3:

- veto.2 and no proton in RP;

Veto.4:

- veto.3 and no proton in OMD;

Veto.5:

- Veto.4 and no charge particles in BO

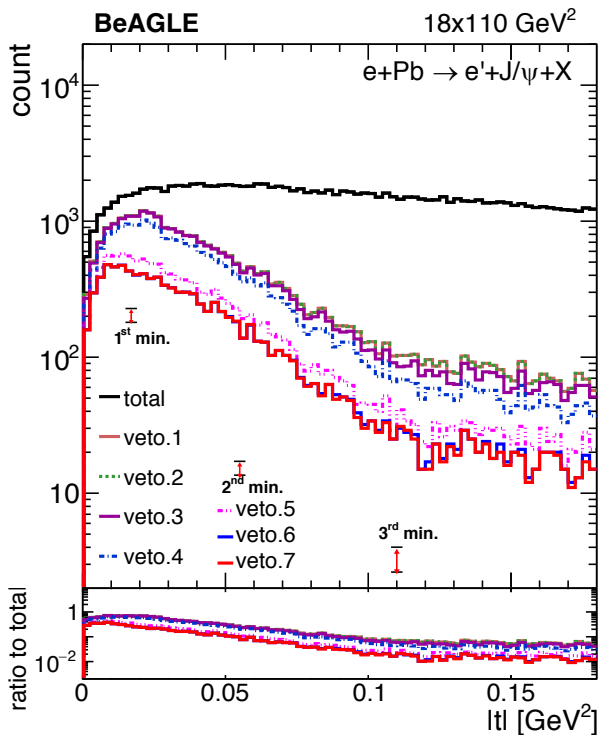
Veto.6:

- Veto4 + no anything in preshower

Veto.7:

- Veto5 + no photon $E > 50 \text{ MeV}$ in ZDC

Survived event count	
Total events	100%
Veto.1	86.9%
Veto.2	9.73%
Veto.3	9.73%
Veto.4	8.73%
Veto.5	6.2%
Veto.6	3.28%
Veto.7	2.037%



Old

Veto.1:

- no neutron in ZDC

Veto.2:

- Veto1 + no proton in Roman Pots

Veto.3:

- Veto2 + no proton in off-momentum detector

Veto.4:

- Veto3 + no charge particles(p, π^\pm, K^\pm) in BO

Veto.5:

- Veto4 + nothing in preshower

Veto.6:

- Veto5 + no photon $E > 50 \text{ MeV}$ in ZDC

Veto.7:

- Veto6 + no activities ($|\eta| < 4.0$ & $p_T > 100 \text{ MeV/c}$ & $E > 50 \text{ MeV}$) other than e^- and J/ψ in the main detector (generator level)

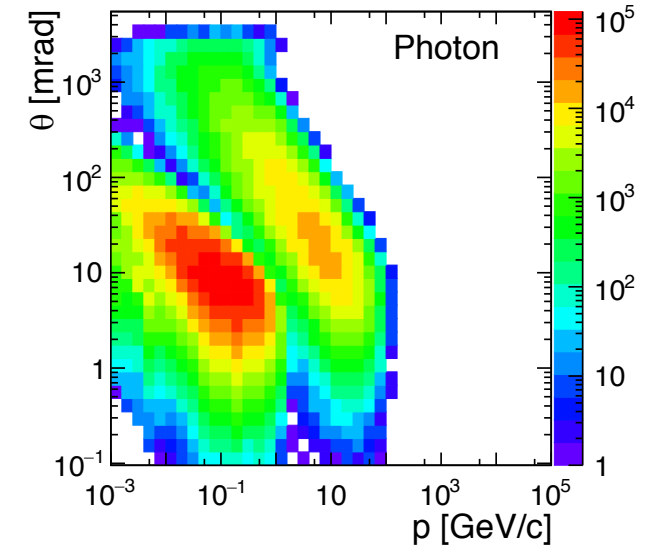
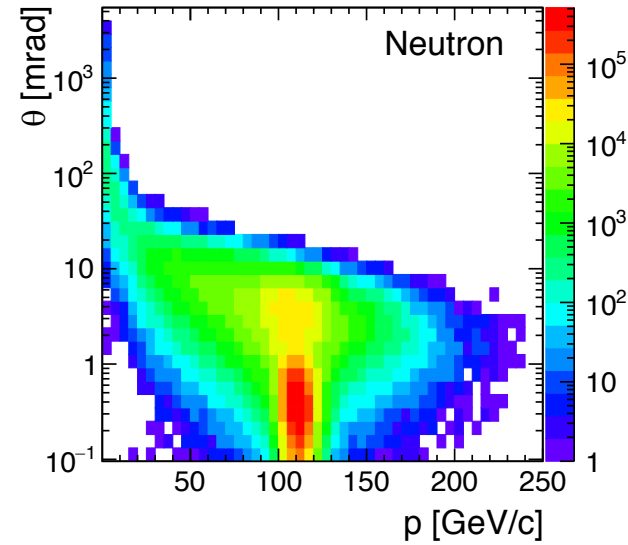
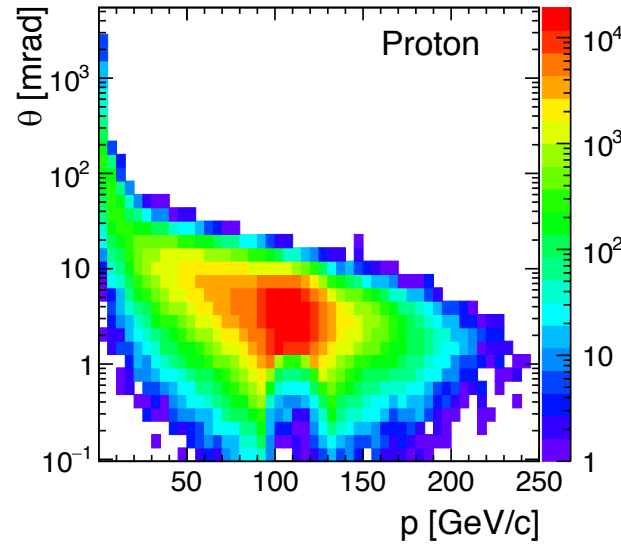
Survived event count	
Total events	100%
Veto.1	16.8%
Veto.2	16.8%
Veto.3	16.28%
Veto.4	11.61%
Veto.5	6.23%
Veto.6	4.91%
Veto.7	4.84%

Old files VS. new files

	ratio	
Events	Old data samples	New data sample
Only neutron(s)	8.1%	7.659%
Only proton(s)	0%	0%
Only photon(s)	7.66%	3.254%
Neutron(s) and proton(s)	3.19%	3.194%
Neutron(s) and photon(s)	40.94%	44.238%
Proton(s) and photon(s)	5.82%	2.265%
Neutron(s), proton(s) and photon(s)	35.03%	39.390%

Old files VS. new files

New files with
update BeAGLE



old files

